

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 7700

Petition of SunGen Sharon 1, LLC for a certificate of )  
public good, pursuant to 30 V.S.A. § 248, authorizing )  
the installation and operation of a 2.2 MW solar electric )  
generation facility located at the Sharon Commerce )  
Park in Sharon, Vermont )  
Hearing at  
Montpelier, Vermont  
May 10, 2011

Order entered: 7/22/2011

HEARING OFFICER: Bridgette L. Remington, Esq.

APPEARANCES: Kale Inoue, Owner/Partner, *pro se*  
Naoto Inoue, Owner/Partner, *pro se*  
for SunGen Sharon I, LLC

Laura Scanlan Beliveau, Esq.  
James Porter, Esq.  
for Vermont Department of Public Service

Donald J. Einhorn, Esq.  
for Vermont Agency of Natural Resources

Diane E. Zamos, Esq.  
for Vermont Agency of Agriculture, Food and Markets

Melissa Stevens, *pro se*  
Morris L. Silver, Esq.  
for Central Vermont Public Service Corporation

**I. INTRODUCTION**

This case involves a petition filed by SunGen Sharon 1, LLC ("SunGen") requesting a certificate of public good ("CPG") under 30 V.S.A. § 248 for the construction and operation of a 2.2 MW solar electric generation facility located at the Sharon Commerce Park in Sharon, Vermont ("Project"). In this proposal for decision, I recommend that the Vermont Public Service Board ("Board") approve the petition.

## II. PROCEDURAL HISTORY

On December 30, 2010, SunGen Sharon 1, LLC ("SunGen") filed a petition with the Board requesting a CPG under 30 V.S.A. § 248 for the construction and operation of a 2.2 MW solar electric generation facility located at the Sharon Commerce Park in Sharon, Vermont.

On January 26, 2011, I held a Prehearing Conference. Appearances were entered by Naoto Inoue, *pro se*, on behalf of SunGen, James Porter, Esq., on behalf of the Vermont Department of Public Service ("Department"), and Donald Einhorn, Esq., on behalf of the Vermont Agency of Natural Resources ("ANR"). Also present was Diane Zamos, Esq., on behalf of the Vermont Agency of Agriculture, Food & Markets ("AAFM").

On February 8, 2011, AAFM filed a motion to intervene.

On February 18, 2011, the Prehearing Conference Memorandum, Scheduling Order, and Ruling on Motion to Intervene was issued, setting a schedule for the docket and granting AAFM's intervention.

Following notice, a site visit and a public hearing were held on March 16, 2011. Approximately five members of the public attended the public hearing. No one spoke in opposition of the Project and several people spoke in support of the Project.

On March 15, 2011 Central Vermont Public Service Corporation ("CVPS") filed a motion to intervene. On March 31, 2011, I issued an order granting the intervention.

On April 15, 2011, the Department filed a letter requesting that the deadline for filing a stipulation be extended from April 25, 2011 to April 29, 2011. The extension was granted on the same day.

On April 21, 2011, CVPS filed a letter regarding the interconnection of the Project to CVPS's distribution system.

On April 27, 2011, SunGen requested, via e-mail, that the deadline for filing a stipulation be extended from April 29, 2011 to May 4, 2011. On April 28, 2011, the extension was granted.

On May 2, 2011, SunGen filed a set of revised plans for the Project.

On May 4, 2011, the Department filed the prefiled testimony of Michael J. Busher and an aesthetic analysis report.

On May 5, 2011, SunGen filed: supplemental prefiled testimony from Kale Inoue, supplemental exhibits, a draft Proposal for Decision ("PFD"), a stipulation between SunGen and AAFM, and a stipulation between SunGen and the the Department, ANR, and CVPS (the two stipulations will be referred to as the "Stipulations"). The Stipulations stated that the Project would promote the general good in accordance with Section 248 and that a certificate of public good should be issued to that effect. The specific provisions of the Stipulations are described in the findings below.

A Technical Hearing was held on May 10, 2011, at which the prefiled testimony, exhibits and the Stipulations were entered into the record.

On May 6, 2011, the Department filed a determination that the proposed project is consistent with the *Vermont Electric Plan*, in accordance with 30 V.S.A. § 202(f).

No other parties filed comments.

### **III. FINDINGS**

Based on the Petition, the associated prefiled testimony, the Stipulations, the draft PFD, the proposed CPG, the evidence presented at the Technical Hearing and the absence of any factual disputes, I have determined that this matter is ready for decision. Based on the substantial evidence of record and the testimony presented at the hearing, I hereby report the following findings to the Board in accordance with 30 V.S.A. § 8.

#### **A. Background and Project Description**

1. SunGen is a Vermont limited liability corporation owned and operated by Naoto Inoue and Kale Inoue, with its principal address at 25 Limerick Road, Arundel, Maine 04046. Inoue pf. at 2.
2. The Project has a nameplate DC capacity of 2.199 MW and has the potential net energy output (after DC to AC conversion) of approximately 2,119 MWh per year. Exh. SG-3.1 at 8.
3. The Project will be sited on 7.75 acres of a 12.4-acre property owned by SunGen within the Sharon Commerce Park in Sharon, Vermont. The Sharon Commerce Park serves as a place of business for commercial and light industry and is located on the west side of River Road and

to the east of Interstate 89. The majority of the site is grassland with scattered shrubs and trees. The southwestern portion of the site is wooded. Inoue pf. at 3; exh. SG-3.1 at 12-14; exh. SG-5.3 at 3-5; exh. DPS-1 at 7-8.

4. The Project will be set back approximately ten feet from the closest adjacent property and approximately 130 feet from the closest residence. Exh. SG-5.3 at 3-5; exh. DPS-1 at 17.

5. The Project will include: (a) 9,562 individual 230-watt photovoltaic panels arranged into twenty-five arrays; (b) nineteen 95-kW inverters installed on small pedestals (with the pedestal, each inverter structure is approximately six feet nine inches high, six feet deep, and four feet wide); (c) one 2,000 kVA step-up transformer installed on a concrete pad (approximately six feet high, six feet deep, and seven feet wide); (d) electrical lines in above-ground insulated conduit connecting the panel strings into combiner boxes along each array; (e) electrical lines in underground conduit connecting the combiner boxes to the inverters, the inverters to the transformer, and the transformer to the existing CVPS distribution system; (f) a four to six-foot-high chain-link fence around the perimeter of the solar installation; and (g) a paved parking and loading area (approximately thirty feet by fifty feet). Inoue supp. pf. at 2-4; exh. SG-1.1(15)(e); exh. SG-3.1 at 4-10, 18-19, 21-22, and Fig. 1; exh. SG-5.3 at 3-5; exh. DPS-1 at 1-2; tr. 5/10/11 at 23-24, 27-28, and 30 (Randall).

6. The photovoltaic panels will be fixed at a twenty-degree angle (in relation to the existing ground) facing true south. Due to the slope of the existing terrain, the true angle of the panels will vary between twenty degrees (panels installed facing true south on flat ground) to thirty degrees (panels installed facing forty-five degrees east of true south on a 25% slope). The arrays will follow the contour of the land, with a maximum height of ten feet six inches at the top of their tilted axis. The panel racks will be sited in approximately twenty-five rows of varying lengths, at fifteen-foot intervals. The mounting system's support poles will be driven into the ground without concrete foundations. If necessary, SunGen will pin the north side of the array to the ground or place concrete ballasts at the base of the support poles that will be partially underground to resist uplift forces. Inoue supp. pf. at 3; exhs. SG-1.1(e), SG-5.3, DPS-1, and Joint-3 at 5.

7. The underground low-voltage electrical lines will be installed at a minimum depth of eighteen inches below grade and the underground medium-voltage electrical lines will be installed at a minimum depth of forty-eight inches below grade. All wire and conduit sizing will be in conformance with all applicable regulations, including the National Electric Code ("NEC"). Inoue supp. pf. at 4.

8. During operation, regular maintenance activities will include mowing or brush-hogging, plowing, and snow removal (if necessary) at appropriate times during the year. Inoue supp. pf. at 4.

9. The majority of the Project area is existing grassland with some small scattered shrubs and small trees, which will be cut down and chipped on-site. The western edge of the Project area, adjacent to the lower drainage channel, includes more concentrated shrubs and trees, which will be cut down or trimmed with the stumps left in place as needed. Tr. 5/10/11 at 30-31 (Randall); exh. SG-5.2 at 8; exh. SG-5.3 at 3-5.

10. The Project will include a paved parking and loading area, but will not require any new roads. Access to the site will be through the property's existing gravel access drive, Commerce Drive, located off River Road. Randall pf. at 8; exh. SG-5.3 at 5; exh. DPS-1 at 2.

11. Project construction is expected to take three to six months. Exh. SG-5.2 at 8.

12. During construction, the Project will generate daily worker-related vehicle trips and will involve approximately two tractor-trailer deliveries per week during active construction (approximately twenty-six tractor-trailer deliveries total). During operation, Project-related vehicle trips will be minimal. Project-related vehicle trips should not impact traffic in the area. Inoue pf. at 4; Randall pf. at 8; exh. SG-5.2 at 9-10.

13. The Project is a qualifying Sustainably Priced Energy Enterprise Development ("SPEED") resource pursuant to 30 V.S.A. § 8001-8005.<sup>1</sup> SunGen has executed a Vermont SPEED Standard Offer Power Purchase Agreement with the Vermont SPEED Facilitator, which

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1. SPEED projects are new electric generating projects that produce renewable energy. A "new" project means a project brought on-line after December 31, 2004. A SPEED project must use a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate. Obvious examples of SPEED projects are utility scale wind farms . . . Vermont SPEED, FAQ Page, <http://vermontspeed.com/faq/>.

For more information about the SPEED program, visit the VermontSPEED website at <http://vermontspeed.com>.

provides for the sale of the Project's output and other attributes, including Renewable Energy Credits ("RECs"), at a fixed price of \$0.30 kWh for a period of twenty-five years. Inoue pf. at 5; exh. SG-1.1(1)-(2).

### Discussion

The draft PFD, stipulated to by all the parties, stated that SunGen would be erecting an informational sign in the eastern corner of the Project site along Commerce Drive<sup>2</sup> and SunGen's *Natural Resources Impact Assessment* stated that SunGen would be installing an educational kiosk at the Town of Sharon's rest area along Route 14.<sup>3</sup> SunGen did not provide detailed descriptions for either of the mentioned installations. At this time, I do not recommend that the Board approve these installations. I recommend that the Board require SunGen to file, prior to construction, detailed descriptions of any Project-related informational and educational installations with the Board for review and approval.

## **B. Review of the Project under the Section 248 Criteria**

### **Orderly Development of the Region**

[30 V.S.A. § 248(b)(1)]

14. The Project will not unduly interfere with the orderly development of the region, with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of municipal legislative bodies, and the land conservation measures contained in the plan of the affected municipality. Inoue pf. at 4. This finding is supported by findings 15 through 17, below, and also by the findings under 30 V.S.A. § 248(b)(5).

15. The Town of Sharon Planning Commission and Board of Selectmen sent letters waiving the 45-day advance notice requirement for reviewing the project as provided by 30 V.S.A. § 248(f) and expressing support for the Project. Inoue pf. at 4; exhs. SG-1.1(4)-(5).

16. The Sharon Town Plan highlights the Sharon Commerce Park as an appropriate site for commerce and light industrial developments. Inoue pf. at 3; exh. SG-1.2 at 69.

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2. Exh. Joint-3 (at finding 21 of the draft PFD).

3. Exh. SG-5.2 at 10.

17. The Two Rivers-Ottawaquechee Regional Commission ("TRORC") sent a letter stating that its regional plan is generally supportive of power generation through renewable resources, provided that such facilities are placed in locations "where aesthetic impact is minimal or reasonable measures have been employed to mitigate the adverse impacts." Exh. SG-1.1(6).

#### Discussion

The TRORC expressed a concern that reflections from the Project might disrupt driving and create a potential safety hazard.<sup>4</sup> In addition, TRORC expressed concern regarding the Project's potential to have a negative aesthetic impact given its proximity to Interstate 89.<sup>5</sup> The TRORC suggested that by making all efforts to mitigate the visibility of the arrays (i.e., by designing the project with a low profile, maintaining adjacent tree-cover and adding additional trees and shrubs), the Project would offer enough public value to justify permitting the Project.<sup>6</sup>

The TRORC's concerns are addressed within the findings and discussions under 10 V.S.A. § 6086(a)(5) (Transportation System), addressing the Project's potential to create glare, and under 10 V.S.A. § 6086(a)(8) (Aesthetics), addressing the Project's potential aesthetic impacts. Based on the findings and discussions concluding that the Project meets these criteria, and with the conditions that I recommend be included in the CPG, I conclude that the Project will not unduly interfere with the orderly development of the region.<sup>7</sup>

#### **Need for Present and Future Demand for Service**

[30 V.S.A. § 248(b)(2)]

18. SunGen has executed a SPEED standard-offer contract with the Vermont SPEED Facilitator, which provides for the sale of the Project's output and other attributes, including RECs, at a fixed price of \$.30/kWh for a period of twenty-five years. Inoue pf. at 5 and 7; exh. SG-1.1(1)-(2).

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4. Exh. SG-1.1(6).

5. Exh. SG-1.1(6).

6. Exh. SG-1.1(6).

7. See Conditions 14 and 15 of this PFD and 12 and 13 of the proposed CPG.

19. No part of the facility is financed directly or indirectly through investments, other than power contracts, backed by Vermont electricity ratepayers. Inoue pf. at 5.

Discussion

Pursuant to 30 V.S.A. § 8005(b)(8):

a demonstration of compliance with subdivision 248(b)(2) of this title, relating to establishing need for the facility, shall not be required if the facility is a SPEED resource and if no part of the facility is financed directly or indirectly through investments, other than power contracts, backed by Vermont electricity ratepayers.

Accordingly, SunGen does not need to demonstrate compliance with this criterion.

Under Board Rule 4.312(B):

At the time that the developer of a generation facility seeking to participate in the SPEED program applies for a certificate of public good under 30 V.S.A. § 248, the applicant shall also request a certification from the Board that the facility constitutes a SPEED project.

I recommend that the Board treat SunGen's petition as a request for certification under Rule 4.312(B).<sup>8</sup> I conclude that there is sufficient information for the Board to conclude that the proposed solar generation facility constitutes a SPEED project and I recommend that the Board certify the Project as a SPEED project.

**System Stability and Reliability**

[30 V.S.A. § 248(b)(3)]

20. The Project will not have an adverse impact on system stability or reliability. This finding is supported by findings 21 through 27, below.

21. The Project will interconnect with CVPS's 12.47 kV distribution line at an existing pole to be determined by CVPS. Inoue pf. at 4; tr. 5/10/11 at 29 (Inoue); exhs. SG-3.2 at 5 and CV-1.

22. CVPS completed a System Impact Study ("SIS") regarding the impacts of the Project on the CVPS distribution system. CVPS will also complete a Facilities Study that will determine the interconnection facilities design. Inoue pf. at 5-6; exh. SG-3.2 at 5; exh. CV-1.

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8. Any party wishing to object to the treatment of Cross Pollination's petition as a request for certification should do so in its comments on this Proposal for Decision.

23. The SIS identified concerns regarding ground fault over-voltage conditions and voltage fluctuations and Section 5.0 of the SIS identified specific requirements to mitigate these concerns. Exh. SG-3.2 at 19.

24. According to CVPS, if the mitigation contemplated under the SIS were implemented, the Project would not have an undue adverse effect on system stability or reliability. Exh. CV-1.

25. The inverter manufacturer represents that the proposed inverters: (a) offer software protection that, in the event of an over-voltage, can ramp down the AC output current to zero almost instantaneously when the AC voltage exceeds 115% of the inverter's rated AC voltage; and (b) use very stout metal-oxide varistors between lines and line-to-ground that can absorb any remaining AC voltage spikes and can offset the over voltage remaining when the inverter disconnects almost instantaneously. Exh. SG-1.1(14).

26. SunGen will comply with the conditions set forth in the SIS and pay for all costs of the interconnection upgrades identified in the Facilities Study design plan to be completed by CVPS. Inoue pf. at 6; tr. 5/10/11 at 20 (Inoue).

27. SunGen will execute an Interconnection Agreement with CVPS. Inoue pf. at 6; tr. 5/10/11 at 20-21 (Inoue).

### Discussion

CVPS represents that, if SunGen follows and adheres to the requirements outlined in the SIS and the interconnection facilities' design to be determined in the forthcoming Facilities Study, the proposed interconnection will not adversely impact the stability and reliability of the CVPS distribution system.<sup>9</sup> At the technical hearing, CVPS noted that solar projects of this size are something new for the CVPS engineering group and that they are continuing to study mitigation techniques.<sup>10</sup> CVPS also stated that in developing the Facilities Study it had identified some alternative mitigation strategies to address the concerns identified in the SIS which might cost less and have fewer impacts than those originally contemplated.<sup>11</sup> CVPS

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9. Tr. 5/10/11 at 14-17 (Silver); exh. CV-1.

10. Tr. 5/10/11 at 14 (Silver).

11. Tr. 5/10/11 at 14-17 (Silver).

stated that it, tentatively, planned to complete the Facilities Study by June 10, 2011, and then file the final design plan for the interconnection facilities with the Board.<sup>12</sup> SunGen, the Department, ANR, and CVPS stipulated to the following condition:

Prior to construction and within 30 days of issuance of the CPG, SunGen will submit to the Board the Facilities Study performed by CVPS detailing the design of the proposed interconnection. The interconnection shall be designed to address all concerns identified by CVPS in the SIS unless the Parties agree that a concern identified in that study is otherwise mitigated or addressed.<sup>13</sup>

SunGen has agreed to comply with the conditions set forth in the SIS and pay for all costs of the interconnection upgrades identified in the forthcoming Facilities Study design plan to be completed by CVPS.<sup>14</sup> SunGen also stated that it would execute an Interconnection Agreement with CVPS.<sup>15</sup>

I recommend that the Board include the stipulated condition that: (1) requires SunGen, prior to construction and within 30 days of issuance of the CPG, to submit to the Board the Facilities Study performed by CVPS detailing the design of the proposed interconnection; and (2) requires that the interconnection be designed to address all concerns identified by CVPS in the SIS unless the parties agree that a concern identified in that study is otherwise mitigated or addressed. In addition, I recommend that the Board require that, prior to operation of the Project, SunGen enter into an interconnection agreement with CVPS and file the agreement with the Board and the Department. Finally, I recommend that, prior to interconnection of the generator with the CVPS system, SunGen provide the Board and the Department with written documentation that the Project meets the applicable codes and standards listed in PSB Rule 5.510.

Based on the evidence and SunGen's adherence to the conditions detailed above, I find that the Project will not have an adverse impact on system stability or reliability.

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12. Tr. 5/10/11 at 1 (Silver).

13. Exh. Joint-1.

14. Inoue pf. at 6; tr. 5/10/11 at 20 (Inoue).

15. Tr. 5/10/11 at 20-21 (Inoue).

**Economic Benefit to the State**

[30 V.S.A. § 248(b)(4)]

28. The Project will result in an economic benefit to the state and its residents. This finding is supported by findings 29 and 30, below.

29. The Project will result in an economic benefit to the state and its residents through grid improvements and the payment of local wages, support services, and local and state taxes. Inoue pf. at 6.

30. The Project will cost approximately \$15 million. The Project's financial contributions to Vermont's economy will include the following:

- during construction, local wages and support services of approximately \$2 million;
- during operation, local wages and support services of approximately \$1.95 million;
- local property taxes of approximately \$375,000, over the life of the Project; and
- state income tax liability of approximately \$1.09 million, over the life of the Project.

Inoue pf. at 7; tr. 5/10/11 at 31 (Inoue).

**Aesthetics, Historic Sites, Air and Water Purity,  
The Natural Environment and Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

31. The Project as proposed will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and public health and safety. This finding is supported by findings 32 through 83, below, which address the criteria specified in 10 V.S.A. §§ 1424(a)(d) and 6086(a)(1)-(8)(a) and (9)(k).

**Outstanding Resource Waters**

[10 V.S.A. § 1424(a)(d)]

32. There are no outstanding resource waters in the Project area. Inoue pf. at 10.

**Water and Air Pollution**  
[10 V.S.A. § 6086(a)(1)]

33. The Project will not result in unreasonable water or air pollution. This finding is supported by findings 34 through 67, below.

34. During construction, short-term periodic emissions may be generated; however, dust will be minimal and will be mitigated through the use of appropriate control measures, including through the application of water as needed. Randall pf. at 5; exh. SG-5.2 at 4 and 5.

35. During operation, the Project will not generate air criteria pollutants and the Project will not require a permit from the Vermont Air Pollution Control Division. Randall pf. at 5; exh. SG-1.1(13).

36. During construction, noise generated by the installation of the solar arrays and equipment such as a mini-excavator and chainsaws may be audible off site. However, the construction-related noise will be temporary and will be kept to acceptable hours (i.e., daytime). Exh. SG-5.2 at 5.

37. The Project's inverters, based on manufacturer specifications, will generate noise at a maximum of 76 A-weighted decibels ("dbA") at full power (when it is sunny) measured one meter from the inverter. The inverters will be placed over 105 feet from the closest property line to ensure minimal impacts from noise generation. Placing the inverters at least 105 feet from the closest property line will attenuate the noise level at the property boundary to 50 dBA, meeting all applicable U.S. Environmental Protection Agency ("EPA") and World Health Organization requirements. The Project's inverters will not generate any noise at night. Randall pf. at 5; exh. SG-3.1 at 19; exh. Joint-1; exh. DPS-1 at 17.

38. The Project's transformer will generate noise at a maximum of 61 dBA. The transformer will be located more than ten feet away from the nearest property line and 130 feet from the closest residence. Although the transformers may produce noise levels higher than 51 dBA at the property line, the Project is not expected to create adverse impacts because of the distance from the nearest residence and given that the site most likely experiences elevated noise levels from the industrial activity at the Sharon Commerce Park and from the site's proximity to Interstate 89 and River Road. Exh. SG-5.3 at 3-5; exh. SG-5.2 at 4; exh. DPS-1 at 17.

39. SunGen will perform post-construction sound monitoring to verify that the Project does not elevate noise levels to adverse levels at nearby residential units. SunGen will file a report with the results of the sound monitoring within 60 days of completion of construction. SunGen proposes that if any neighboring residents file a complaint with the Board concerning sound levels, the Board may accelerate the sound monitoring process at its discretion. Exh. Joint-1.

#### Discussion

SunGen states that construction-related noise will include "normal" construction noises and will be temporary and kept to acceptable hours (i.e., daytime).<sup>16</sup> To more adequately mitigate the possible impacts of construction noise on nearby residences, I recommend that the Board limit the Project's construction activities to the hours between 7:00 A.M. and 5:00 P.M., Monday through Saturday, and require that all construction activities cease on Sundays and State and Federal Holidays.

In addition, the transformers may produce noise levels higher than 51 dBA at the property line and will be located approximately 130 feet from the nearest residence.<sup>17</sup> Therefore, to ensure that the Project's operations do not create undue noise pollution, I recommend that the Board issue a CPG with the following conditions, as stipulated to by SunGen, the Department, ANR, and CVPS:

Electrical inverters will be placed over 105 feet from the closest property line to ensure minimal impacts from noise generation.

SunGen will perform post-construction sound monitoring to verify that the Project does not elevate noise levels to adverse levels at nearby residential units. SunGen will file a report with the results of the sound monitoring within 60 days of completion of construction. If any neighboring residents file a complaint with the Board concerning sound levels, the Board may accelerate the sound monitoring process at its discretion.

The parties did not specify a process for addressing any adverse impacts identified in the sound monitoring report. Therefore, I also recommend that the Board include a condition in the

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16. Exh. SG-5.2 at 5.

17. Exh. SG-5.3 at 3-5; exh. SG-5.2 at 4; exh. DPS-1 at 17.

CPG stating that the Board may require SunGen to mitigate sound levels if, after reviewing the sound monitoring report, the Board finds they are necessary.

**Headwaters**

[10 V.S.A. § 6086(a)(1)(A)]

40. The Project will meet any applicable health and Department of Environmental Conservation regulations regarding reduction of the quality of the ground or surface waters flowing through or upon lands which are not devoted to intensive development, and which lands are headwaters of watersheds characterized by steep slopes and shallow soils. This finding is supported by findings 41 and 42 and findings 59 through 67, below.

41. The Project property is by definition a headwaters area, characterized by steep slopes, which includes a series of drainage channels and a drainage swale located along the southwestern portion of the site. Randall pf. at 5; exh. SG-5.2 at 7; exh. SG-5.3.

42. The Project will be located downhill of the drainage channels and will not impact the existing drainage on site. All construction, excluding minimal tree trimming and cutting, will occur downhill and at least fifteen feet from the drainage channels. Randall pf. at 5; exh. SG-5.2 at 5 and 7; exh. SG-5.3.

**Waste Disposal**

[10 V.S.A. § 6086(a)(1)(B)]

43. The Project will meet applicable health and Department of Environmental Conservation regulations regarding the disposal of wastes. This finding is supported by findings 44 through 48, below.

44. The Project's transformer will meet the Institute of Electrical and Electronics Engineers ("IEEE") Standards regarding oil-containment facilities. Inoue supp. pf. at 4; Randall pf. at 6; exh. SG-5.2 at 6.

45. The Project will not require a stormwater discharge permit or a construction discharge permit because the Project will add less than one total acre of impervious surfaces on the site and will not require grading or change the existing drainage on site. Randall pf. at 5-7; exh. SG-1.1(12); exh. SG-5.2 at 6; *see also* finding 42, above.

46. The Project will not involve discharges, the injection of wastes or toxic substances into groundwater, or the storage of hazardous materials. Randall pf. at 6.

47. During operation, the Project will not generate wastes. During construction, any wastes generated will be recycled or disposed of in an appropriate manner and any removed trees and brush will be disposed of on site with the use of a chipper and potentially used for soil erosion control measures. At the end of their useful life (which varies from 25 to over 100 years), the panels and racking system will be taken down and recycled based on regulations at that time. When the Project ceases to operate, SunGen will perform decommissioning, which will include the removal and recycling, if possible, of the panels, racking structure, soil screws, inverters, transformers, fencing, and concrete pads. Randall pf. at 6; exh. SG-5.2 at 5; tr. 5/10/11 at 31 (Randall); exh. Joint-3 at 8.

48. No herbicides will be used to control vegetation growth. Randall pf. at 5-6; exh. SG-5.2 at 6.

### **Floodways**

[10 V.S.A. §§ 6086(a)(1)(D)]

49. The Project will not restrict or divert the flow of flood waters, or endanger the health, safety and welfare of the public or of riparian owners during flooding; and will not significantly increase the peak discharge of the river or stream within or downstream from the area of development or endanger the health, safety, or welfare of the public or riparian owners during flooding. This finding is supported by finding 50, below.

50. The Project will not involve development within a floodway or floodway fringe area. Randall pf. at 7; exh. SG-5.2 at 6 and 28.

### **Streams**

[10 V.S.A. §§ 6086(a)(1)(E)]

51. The Project will not result in undue or adverse impacts on streams. This finding is supported by findings 52 and 53, below.

52. There are no streams on the proposed project site. Randall pf. at 7; exh. SG-5.2 at 7.

53. A stream is located approximately 275 feet south of the southwestern corner of SunGen's property and approximately 300 feet uphill from the Project itself. The Project will not impact the stream. Randall pf. at 7; exh. SG-5.2 at 7.

#### **Shorelines**

[10 V.S.A. § 6086(a)(1)(F)]

54. The Project is not located on a shoreline. Randall pf. at 7; exh. SG-5.2 at 7.

#### **Wetlands**

[10 V.S.A. § 6086(a)(1)(G)]

55. The Project will have no undue or adverse impacts on wetlands. This finding is supported by findings 56 and 57, below.

56. There are no wetlands located on the Project site. Randall pf. at 7; exh. SG-1.1(9); exh. SG-5.2 at 7 and 26.

57. There may be an unmapped Class III wetland area, in the form of a seasonal stormwater pond, on the adjacent lot; however, the area is located 164 feet from the Project site and the Project will not impact the pond. Randall pf. at 7; exh. SG-5.2 at 7; tr. 5/10/11 at 35 (Randall).

#### **Water Conservation, Sufficiency of Water, and Burden on Existing Water Supply**

[10 V.S.A. §§ 6086(a)(1)(C), (a)(2), & (a)(3)]

58. The Project will not use water for operation and, during construction, SunGen will truck in water as needed for dust, erosion, and sediment control. Randall pf. at 7; exh. SG-5.2 at 6 and 8; tr. 5/10/11 at 35 (Randall).

#### **Soil Erosion**

[10 V.S.A. § 6086(a)(4)]

59. The Project will not cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result. This finding is supported by findings 60 through 67, below.

60. The Project property slopes west to east. The property includes slopes with grades of between approximately 15% and 40% in the western corner, approximately 5% in the middle, and 0-2% in the eastern corner. Exh. SG-5.2 at 8.

61. The majority of the Project area is existing grassland with some small scattered shrubs and small trees, which will be cut down and chipped on-site. The western edge of the Project area, adjacent to the lower drainage channel, includes more concentrated shrubs and trees, which will be cut down or trimmed with the stumps left in place as needed. Exh. SG-5.2 at 8.

62. During construction, the Project will disturb approximately 20,000 square feet of soil by trenching conduit, driving the solar array's support structures into the ground, moving construction materials around the site, and constructing the parking and staging area. Randall pf. at 6; tr. 5/10/11 at 28 (Randall); exh. SG-5.2 at 8.

63. The soil disturbances will be scattered and the existing grassland is littered with dried grass and straw, which creates an erosion-proof layer that will greatly reduce the Project's soil disturbances and erosion potential. Exh. SG-5.2 at 8.

64. SunGen's engineer will direct the implementation of standard soil erosion controls as needed. The Project's erosion controls will be maintained at the end of every work day and the Project's erosion practices will be reevaluated, at a minimum, once every two weeks. SunGen's potential erosion control strategies will include the use of silt fences, straw mulch, straw bales, and check dams. SunGen will also employ construction practices that minimize repeated traversing of areas within the Project site. Randall pf. at 6; exh. SG-5.2 at 5 and 7-9.

65. All erosion and sediment control practices and structures will be in conformance with the *Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites* and all trenching for the installation of the underground electrical lines will be done in conformance with ANR's erosion and sediment control requirements. Inoue supp. pf. at 4; exh. SG-5.2 at 8.

66. SunGen may construct the Project between October 1 and April 14. However, if Project construction occurs during the winter months, the Project will comply with the State's requirements for winter erosion controls in the *Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites* by installing a silt fence, laying stone under areas of construction

traffic, and adequately controlling snow melt downstream of any disturbed area. Randall pf. at 7; exh. SG-5.2 at 8.

67. After construction, SunGen will employ permanent vegetation and seeding as conditions warrant. Exh. SG-5.2 at 8.

### **Transportation Systems**

[10 V.S.A. § 6086(a)(5)]

68. The Project will not cause unreasonable congestion or unsafe conditions with respect to transportation. This finding is supported by findings 69 through 71, below.

69. The Project will include a paved parking and loading area, but will not require any new roads. Access to the site will be through the property's existing gravel access drive, Commerce Drive, located off River Road. Randall pf. at 8; exh. SG-5.3 at 5; exh. DPS-1 at 2.

70. During operation, Project-related vehicle trips will be minimal. During construction, the Project will generate daily worker-related vehicle trips and during active construction, will generate approximately two tractor-trailer deliveries per week (approximately twenty-six tractor-trailer loads total). Project-related vehicle trips should not impact traffic in the area. Inoue pf. at 4; Randall pf. at 8; exh. SG-5.2 at 9-10.

71. The Project will be located adjacent to, but not within, the right-of-way limits of the Interstate 89 Northbound. However, the Project will not significantly affect the transportation facilities or future access to the transportation facilities in the area. Exh. SG-1.1(11).

### **Discussion**

SunGen's *Natural Resources Impact Assessment* states that "[i]f necessary, a construction entrance will be installed to mitigate the tracking of vehicles off-site along the unpaved Commerce Drive."<sup>18</sup> However, its prefiled testimony states that "all existing roads are adequately designed for the vehicles required"<sup>19</sup> and its site plans do not include an improved construction entrance.<sup>20</sup> Therefore, I recommend that if SunGen determines a construction

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18. Exh. SG-5.2 at 8.

19. Randall pf. at 8.

20. Exh. SG-5.3.

entrance is necessary, SunGen be required to file, prior to construction, a plan regarding the proposed entrance with the Board for review and approval.

Further, a review of the Project by the Vermont Agency of Transportation ("Vtrans") and the Federal Highway Administration ("FHA") found that the Project will not significantly affect the transportation facilities or future access to the transportation facilities in the area.<sup>21</sup> However, the FHA raised a concern about the potential for glare from the solar panels and Vtrans requested that the concern be considered during the development of the Project.<sup>22</sup> In addition, the Department's aesthetic analysis, the local planning commission, and a member of the public at the Public Hearing, expressed concerns regarding the potential for the solar panels to reflect sunlight towards drivers.<sup>23</sup>

In response, SunGen submitted information explaining that photovoltaic modules are treated with an anti-reflective coating and that the arrays will be angled in a direction that is unlikely to reflect light towards drivers.<sup>24</sup> SunGen's submission also pointed out that several airports have installed photovoltaic systems, even without the anti-reflective coating, and have not reported any negative impacts related to reflection.<sup>25</sup> In addition, the submission noted that reflections from windows create more of a hazard to drivers than photovoltaic modules.<sup>26</sup>

Even with this additional information, the Department's aesthetic expert recommended "[p]ost construction monitoring of reflectivity of the solar panels should be required to evaluate potential safety issues from Interstate 89" and indicated that, if reflections were created, landscaping plantings could be used to screen for reflection.<sup>27</sup> Further, SunGen, the Department, ANR, and CVPS stipulated to the following condition:

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21. Exh. SG-1.1(11).

22. Exh. SG-1.1(11).

23. Exh. SG-1.1(6); exh. DPS-1 at 15.

24. Exh. DPS-1 at 15 and Appendix E.

25. Exh. DPS-1 at Appendix E.

26. Exh. DPS-1 at Appendix E.

27. Exh. DPS-1 at 15 and 18.

The Petitioner will evaluate reflectivity of the solar panels for potential safety issues from Interstate 89 following the construction and will file a report with the Board within 60 days of completion of construction. If the Board receives any complaints regarding reflectivity, it may accelerate the evaluation process at its discretion.

Many solar photovoltaic panels have been installed throughout Vermont over the past several years (ranging in size from less than 3 kW to 2.2. MW) and the Board has not received any reports of unsafe driving conditions created by reflections from any of the installations, even those located along busy roadways. However, because several interested parties raised concerns, including the FHA and the local planning commission, and considering that SunGen has agreed to evaluate the reflectivity of the solar panels, I recommend that the Board require SunGen to complete a reflectivity monitoring plan.

If SunGen evaluates reflectivity, it must be a comprehensive evaluation with useful results. The stipulation requires SunGen to evaluate reflectivity only from Interstate 89. Considering that the Project will be more visible from River Road and Route 14 than from Interstate 89,<sup>28</sup> I recommend that the Board require SunGen to evaluate reflectivity for potential safety issues from Interstate 89, River Road, and Route 14. The stipulation requires SunGen to file a report on reflectivity within sixty days of the completion of construction. Considering that the position and angle of the sun changes throughout the year, I recommend that, as required in the Addison Solar Farm, LLC docket, SunGen be required to monitor the reflectivity of the panels during the first year of construction.<sup>29</sup> In addition, I recommend that the Board require SunGen to develop, prior to operation, a reflectivity monitoring plan and file the plan with the Board and the Department. Further, I recommend that the Board reserve the right, based on the results of the reflectivity monitoring plan, to require SunGen to install mitigation measures.

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28. Exh. DPS-1 at 9-15.

29. *Petition of Addison Solar Farm, LLC*, Docket 7594, Order of 8/3/10 at 31 (including the only Board-required reflectivity evaluation for a solar electric generation facility, involving the first large solar energy project in Vermont, which was located along Route 7).

**Educational and Municipal Services**  
[10 V.S.A. § 6086(a)(6) and (7)]

72. The Project will not cause an unreasonable burden on the ability of a municipality to provide educational services and will not place an unreasonable burden on the ability of the local governments to provide municipal or governmental services. Randall pf. at 8. This finding is further supported by findings 73 and 74, below.

73. The Project will employ two to three local people for general property maintenance, but this employment should not result in any new students attending local schools. In addition, SunGen intends to interact and work with local schools to enhance their energy-related curricula. Randall pf. at 8; exh. SG-5.2 at 10 and 29 (School Impact Questionnaire).

74. The local municipality has the capacity to provide services without an unreasonable burden. SunGen will use private trash haulers to dispose of Project-related wastes. Randall pf. at 8; exh. SG-5.2 at 10 and 29 (Municipal Impact Questionnaire).

**Aesthetics, Historic Sites  
and Rare and Irreplaceable Natural Areas**  
[10 V.S.A. § 6086(a)(8)]

75. The Project will not have an undue adverse effect on the scenic or natural beauty, aesthetics, historic sites or rare and irreplaceable natural areas. This finding is supported by findings 76 through 81, below.

76. The Project will not have an adverse impact on the aesthetics of the surrounding area. Buscher pf. at 2; exh. DPS-1 at 18-19.

77. The Project will be located within the Sharon Commerce Park, which is separated from the White River and River Road by the New England Central Railroad and sits to the west of Interstate 89 down a steep bank. The Sharon Commerce Park was intended to be developed with low impact, light industry and includes several existing industrial-style buildings of varying sizes, up to approximately 50,000 square feet. Buscher pf. at 2; exh. DPS-1 at 8 and Appendix C.

78. The Project will be visible from certain vantage points along River Road, Route 14, the White River, and Interstate 89. However, the Project will have a lower profile than the existing

development on the site and will be viewed within the context of the larger development. In addition, public viewpoints of the Project are generally limited and short in duration and SunGen will retain existing vegetation that provides a buffer and visual screen to Interstate 89. Buscher pf. at 2-3; exh. DPS-1 at 9-16 and Appendixes A-B.

79. The Project will not include lighting. Exh. SG-5.2 at 14.

80. The Project will not impact any archeologically sensitive or historic sites. Exh. SG-1.1(10); exh. SG-5.2 at 14.

81. There are no known rare or irreplaceable areas at the Project site. Randall pf. at 8.

### Discussion

The conclusion that the Project will not have an adverse impact on aesthetics is based on the current design. As noted by the Department's aesthetic expert, the forthcoming Facilities Study may impact this conclusion and necessitate landscaping to screen the transformers from the residential units at the north end of the Sharon Commerce Park.<sup>30</sup> Therefore, I recommend that the Board review the final design plan, to be submitted within 30 days of the issuance of the CPG, to determine whether the final interconnection plan requires aesthetic mitigation. In addition, because SunGen is not installing any aesthetic mitigation, I recommend that the Board include a condition in the CPG stating that the Board may require SunGen to install aesthetic mitigation measures if, after viewing the completed project, the Board finds they are necessary.

### **Necessary Wildlife Habitat and Endangered Species**

[10 V.S.A. § 6086(a)(8)(A)]

82. The proposed project will not destroy or significantly imperil necessary wildlife habitat or any endangered species. There are no wildlife or endangered species habitat near or adjacent to the Project site. Randall pf. at 8; exh. SG-5.2 at 14 and 26-27.

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30. Exh. DPS-1 at 11.

**Development Affecting Public Investments**

[10 V.S.A. § 6086(a)(9)(K)]

83. The closest public investments are River Road and Interstate 89. The Project will not unnecessarily or unreasonably endanger the public or quasi-public investments in any governmental public utility facilities, services, or lands, or materially jeopardize or interfere with the function, efficiency, or safety of the public's use or enjoyment of, or access to, such facilities, services, or lands. Randall pf. at 8; exh. SG-5.2 at 14. This finding is also supported by the findings and discussion under 10 V.S.A. § 6086(a)(5), above.

**Public Health and Safety**

[30 V.S.A. § 248(b)(5)]

84. The proposed project will not have any undue adverse impacts on public health or safety. Randall pf. at 9. This finding is supported by the findings and discussion under 10 V.S.A. § 6086(a)(5), above, and findings 85 through 87, below.

85. The entire solar facility will be enclosed by a perimeter fence. Tr. 5/10/11 at 30 (Inoue); exh. DPS-1; exh. SG-5.3.

86. The Project's solar photovoltaic panels will have an anti-reflective coating, in order to absorb rather than reflect the sun's energy. In addition, the panels will be oriented at an angle that is not likely to reflect light at an angle towards travelers. Exh. DPS-1 at 15.

87. The Project will be constructed in compliance with all Federal, State, and Local regulations, including, but not limited to, the NEC and National Electric Safety Code. Randall pf. at 9.

**Least Cost Integrated Resource Plan**

[30 V.S.A. § 248(b)(6)]

88. SunGen is not a distribution utility and is not required to have an integrated resource plan.

**Compliance with Electric Energy Plan**

[30 V.S.A. § 248(b)(7)]

89. The Project complies with the *Vermont Twenty-Year Electric Plan* because it supports the Plan's recommendations that the State "should evaluate financial incentive mechanisms to foster renewable energy deployment." The Project will promote the Plan's goals to enhance Vermont's energy resources and advance its renewable portfolio. Inoue pf. at 9.

90. On May 6, 2011, the Department filed a letter stating that the Project is consistent with the *Vermont Twenty-Year Electric Plan*, pursuant to 30 V.S.A. § 202(f). Letter of May 6, 2011, from Laura Scanlan Beliveau, Esq., to Susan Hudson, Clerk of the Board.

**Outstanding Resource Waters**

[30 V.S.A. § 248(b)(8)]

91. There are no outstanding resource waters in the Project area. Inoue pf. at 10.

**Waste-to-Energy Facility**

[30 V.S.A. § 248(b)(9)]

92. The Project does not involve a waste-to-energy facility. Inoue pf. at 10.

**Existing or Planned Transmission Facilities**

[30 V.S.A. § 248(b)(10)]

93. The Project can be served economically by existing transmission facilities without undue adverse impacts on Vermont utilities and customers. This finding is supported by the findings under 30 V.S.A. § 248(b)(3) and findings 94 and 95, below.

94. The Project will connect directly to the CVPS distribution system at 12.47 kV using an existing line adjacent to the Project site. Inoue pf. at 10; exh. SG-5.3 at 5; tr. 5/10/11 at 29 (Inoue).

95. SunGen will pay for any electrical system modifications required to interconnect the Project. Tr. 5/10/11 at 21 (Inoue).

### Decommissioning Fund

96. The agricultural potential of the soils at the Project site is limited: however, during operation, SunGen will periodically mow or brush-hog the site to ensure that vegetation will not shade the panels and that the land remains open and available for agricultural production, pasture, cropping, or the construction of greenhouses or other farm structures at the time of decommissioning. Exh. Joint-2; exh. SG-1.1(16).

97. When the Project ceases to operate, SunGen will perform decommissioning, which will include the removal and recycling, if possible, of the panels, racking structure, soil screws, inverters, transformers, fencing, and concrete pads. Exh. Joint-3 at 8; Randall pf. at 6.

98. SunGen will create a decommissioning fund ("Fund") that is secured by cash, bond, letter of credit, or other financial mechanism that is held by a third party and would be bankruptcy remote. Inoue supp. pf. at 5.

99. SunGen will have a Fund in place prior to proceeding with construction. The Fund will grow as the construction process proceeds such that the funding level is commensurate with the costs of removing infrastructure in place. Tr. 5/10/11 at 38 (Inoue).

### Discussion

I recommend that the Board issue a CPG for the Project with the following condition, which is consistent with decommissioning requirements previously approved by the Board:<sup>31</sup>

Prior to proceeding with construction, SunGen shall submit to the Board for review and approval a plan for decommissioning that includes a detailed estimate of the projected decommissioning costs and a plan for the creation of a Fund. SunGen shall ensure that the Fund is backed by an "irrevocable standby" Letter of Credit or another appropriate financial security that (1) increases over time to account for inflation; and (2) is bankruptcy-remote, to protect it from creditor claims in the event the proposed project encounters financial difficulties. Parties shall have two weeks, from the date the plan is filed with the Board, to file any comments.

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31. *Petition of EOS Ventures, LLC*, Docket 7618, Order of 9/8/10 at 26 and Order of 5/5/11; *Petition of Georgia Mountain Community Wind*, Docket 7508, Order of 6/11/10 at 84-85; *Joint Petition of PPL Renewable Energy, LLC, and Green Mountain Power Corp.*, Docket 7416, Order of 8/29/08 at 20; *Amended Petition of Deerfield Wind, LLC*, Docket 7250, Order of 4/16/09 at 95; Docket 7594, Order of 8/3/10 at 29-30.

#### IV. DISCUSSION

SunGen has provided sufficient evidence to demonstrate that the Project complies with Section 248 criteria. I recommend that the Board approve the proposed project and issue a certificate of public good ("CPG") for construction of the proposed project in accordance with the Stipulations, with the conditions agreed to by the parties, and with the additional conditions that I have recommended in this proposal for decision ("PFD").

On May 5, 2011, SunGen filed two Stipulations and a draft PFD in which all the parties agreed that the Board should issue a CPG with conditions. All parties to this proceeding, with the exception of the Agency of Agriculture, Food and Markets have agreed to waive their rights under 3 V.S.A. § 811 to file written comments or present oral argument with respect to this PFD, provided that this PFD is substantially in the form as that agreed to by the parties.<sup>32</sup> Given that I am recommending several conditions not included by the parties in the Stipulations, which the parties may view as significant changes, I am circulating the PFD to the Parties for their review and comment pursuant to 3 V.S.A. § 811.

#### V. CONCLUSION

Based upon the evidence in the record, I conclude that the proposed project, with the conditions identified below:

- (a) will not unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the municipal and regional planning commissions, and the recommendations of the municipal legislative bodies;
- (b) is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and land management measures;
- (c) will not adversely affect system stability and reliability;
- (d) will result in an economic benefit to the state and its residents;

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32. Exh. Joint-1. AAFM did not waive this right within its submitted Stipulation, but did agree to waive this right at the Technical Hearing. Exh. Joint-2; tr. 5/10/11 at 13 (Zamos). However, the agreement to waive such rights must be provided in writing. 3 V.S.A. § 811 ("The parties by written stipulation may waive compliance with this section.").

(e) will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. § 1424a(d) and §§ 6086(a)(1) through (8) and (9)(K);

(f) is consistent with the principles of least-cost integrated resource planning;

(g) is in compliance with the electric energy plan under 30 V.S.A. § 202;

(h) does not involve a facility affecting or located on any segment of the waters of the State that has been designated as outstanding resource waters by the Water Resources Board;

(i) does not involve a waste-to-energy facility; and

(j) can be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers.

I recommend that the Board approve the proposed project and issue a CPG for construction of the proposed project with the conditions set forth in the proposed Order and CPG, below.

DATED at Montpelier, Vermont this 14<sup>th</sup> day of July, 2011.

s/Bridgette L. Remington

Bridgette L. Remington, Esq.  
Hearing Officer

## VI. BOARD DISCUSSION

On July 1, 2011, SunGen filed a letter commenting on the PFD and stating that it was not requesting an oral argument. SunGen presented three requests for the Board's consideration, discussed below.

On July 5, 2011, Central Vermont Public Service Corporation ("CVPS") filed the Facilities Study detailing the design of the proposed interconnection, which satisfies Condition 5 of the proposed certificate of public good ("CPG").

On July 6, 2011, CVPS filed a letter stating that it does not have any comments on the PFD.

The Hearing Officer recommended that SunGen restrict construction activities to the hours between 7:00 A.M. and 5:00 P.M., Monday through Saturday, and cease all construction activities on Sundays and State and Federal Holidays. SunGen requests that the Board allow construction "to continue until sunset or 5:00 P.M., Monday through Saturday, whichever is later," to facilitate construction before the winter months. However, the 5:00 P.M. restriction serves to protect adjoining landowners from being unduly impacted by increased noise levels and air pollution when they are most likely to be at home. Therefore, although we appreciate SunGen's desire to construct the Project before winter, we agree with the Hearing Officer's recommendation to prohibit construction after 5:00 P.M.

The Hearing Officer also recommended that, if SunGen determined a construction entrance was necessary, SunGen should file a plan for the proposed entrance with the Board for review and approval, prior to construction. SunGen states that "the proposed construction entrance is an Erosion and Sediment control [best management practice], which in the case it was needed, would be installed on-site and not within Commerce Drive." SunGen further states that "it would be more efficient not to obtain approval from the Board for" the construction entrance, and that "its installation (if warranted) will not negatively affect off-site areas." SunGen has not provided sufficient evidence to establish that the installation of a construction entrance will not adversely impact the Section 248 criteria that address water pollution and soil erosion. Given this lack of evidence, we adopt the Hearing Officer's recommendation that SunGen be required to file a plan for the installation of any such entrance with the Board for review and approval.

However, we are altering the language of the relevant condition to allow SunGen to commence construction of the Project prior to determining whether it will require a construction entrance. Therefore, we are revising the condition to require that, if SunGen determines a construction entrance is necessary, prior to construction *of any construction entrance*, SunGen shall file a plan regarding the proposed entrance with the Board for review and approval.

Finally, if SunGen planned to install informational and educational kiosks, the Hearing Officer recommended that the Board require SunGen to file detailed descriptions of any such installation with the Board for review and approval prior to construction. However, SunGen requests that it be allowed to commence construction of the Project prior to filing the kiosk design/s with the Board for approval "to allow more time for exploring the possibility of using local entities to assist in design and implementation." We grant SunGen's request and require that, *prior to construction of any Project-related informational and educational installations*, SunGen shall file detailed descriptions of such installations with the Board for review and approval.

In light of these considerations, we adopt the Hearing Officer's PFD, with the two modifications detailed above.

## **VI. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings, conclusions, and recommendations of the Hearing Officer are adopted, as modified above.
2. The proposed construction and operation of a 2.2 MW solar electric generation facility located at the Sharon Commerce Park in Sharon, Vermont (the "Project"), will promote the general good of the State of Vermont in accordance with 30 V.S.A. Section 248, and a certificate of public good to that effect shall be issued.
3. Construction, operation, and maintenance of the proposed project shall be in accordance with the plans and evidence as submitted in these proceedings. Any material deviation from these plans must be approved by the Board.

4. Prior to proceeding with construction, SunGen Sharon I LLC ("SunGen") shall obtain all necessary permits and approvals. Construction, operation, and maintenance of the proposed project shall be in accordance with such permits and approvals, and with all other applicable regulations, including those of the Agency of Natural Resources.
5. The proposed Project is hereby certified as a Sustainably Priced Energy Enterprise Development ("SPEED") project.
6. Prior to construction, SunGen shall file a detailed description of any informational and educational installations with the Board for review and approval.
7. Prior to construction and within 30 days of issuance of the certificate of public good ("CPG"), SunGen shall submit to the Board the Facilities Study performed by Central Vermont Public Service Corporation ("CVPS") detailing the design of the proposed interconnection. The interconnection shall be designed to address all concerns identified by CVPS in the system impact study unless the parties agree that a concern identified in that study is otherwise mitigated or addressed.
8. Prior to operation of the Project, SunGen shall enter into an interconnection agreement with CVPS and file the agreement with the Board and the Department.
9. Prior to interconnection of the generator with the CVPS system, SunGen shall provide the Board and the Department with written documentation that the Project meets the applicable codes and standards listed in PSB Rule 5.510.
10. SunGen shall restrict construction activities to the hours between 7:00 A.M. and 5:00 P.M., Monday through Saturday, and require that all construction activities cease on Sundays and State and Federal Holidays.
11. Electrical inverters shall be placed over 105 feet from the closest property line to ensure minimal impacts from noise generation.
12. SunGen shall perform post-construction sound monitoring to verify that the Project does not elevate noise levels to adverse levels at nearby residential units. SunGen shall file with the Board a report with the results of the sound monitoring within 60 days of completion of construction. If any neighboring residents file a complaint with the Board concerning sound levels, the Board may accelerate the sound monitoring process at its discretion. Based on the

results of the sound monitoring plan, the Board reserves the right to require SunGen to install mitigation measures.

13. If SunGen determines a construction entrance is necessary, prior to construction, SunGen shall file a plan regarding the proposed entrance with the Board for review and approval.

14. Prior to operation, SunGen shall develop a reflectivity monitoring plan and file the plan with the Board and the Department. The reflectivity of the Project shall be monitored during the first year of operation and evaluate reflectivity for potential safety issues from Interstate 89, River Road, and Route 14. Based on the results of the reflectivity monitoring plan, the Board reserves the right to require SunGen to install mitigation measures.

15. Within 30 days of the completion of the construction of the Project, SunGen shall arrange a site visit with the Board and all parties to review the need for aesthetic mitigation. As a result of the inspection, the Board reserves the right to require SunGen to install mitigation measures.

16. The Project shall be decommissioned at the end of its useful life.

17. Prior to proceeding with construction, SunGen shall submit to the Board for review and approval a plan for decommissioning that includes a detailed estimate of the projected decommissioning costs and a plan for the creation of a Fund. SunGen shall ensure that the Fund is backed by an "irrevocable standby" Letter of Credit or another appropriate financial security that (1) increases over time to account for inflation, and (2) is bankruptcy-remote, to protect it from creditor claims in the event the proposed project encounters financial difficulties. Parties shall have two weeks, from the date the plan is filed with the Board, to file any comments.

Dated at Montpelier, Vermont, this 22<sup>nd</sup> day of July, 2011.

s/James Volz )

) PUBLIC SERVICE

s/David C. Coen )

) BOARD

) OF VERMONT

s/John D. Burke )

OFFICE OF THE CLERK

FILED: July 22, 2011

ATTEST: s/Susan M. Hudson  
Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within*